

I claim:

1 1. An internal indifferent electrode device for use with a power
2 supply apparatus including a power output connector and a power return
3 connector, the internal indifferent electrode device comprising:

4 a flexible shaft defining a distal end, a distal portion, a proximal
5 end and a proximal portion;

6 at least one energy transmission device adapted to be inserted
7 into a body supported on the distal portion of the flexible shaft; and

8 an indifferent electrode connector operably connected to the at
9 least one energy transmission device and adapted to mate with the power
10 return connector.

1 2. An internal indifferent electrode device as claimed in claim 1,
2 wherein the flexible shaft is at least 12 inches in length.

1 3. An internal indifferent electrode device as claimed in claim 1,
2 wherein the distal portion of the flexible shaft defines a diameter less than 4
3 mm.

1 4. An internal indifferent electrode device as claimed in claim 1,
2 wherein the at least one energy transmission device comprises an electrode.

1 5. An internal indifferent electrode device as claimed in claim 1,
2 wherein the at least one energy transmission device comprises a plurality of
3 spaced energy transmission devices.

1 6. An internal indifferent electrode device as claimed in claim 1,
2 wherein the at least one energy transmission device comprises a flexible
3 electrode.

1 7. An internal indifferent electrode device as claimed in claim 1,
2 further comprising:

3 a cable extending from the proximal end of the shaft to the
4 indifferent electrode connector.

1 8. An internal indifferent electrode device as claimed in claim 1,
2 wherein the power output connector defines a first configuration, the power
3 return connector defines a second configuration different than the first
4 configuration, and the indifferent electrode connector defines a configuration
5 that substantially corresponds second configuration.

1 9. An internal indifferent electrode device as claimed in claim 8,
2 wherein the power output connector defines a first shape, the power return
3 connector defines a second shape different than the first shape, and the
4 indifferent electrode connector defines a shape substantially corresponding to
5 the second shape.

1 10. An internal indifferent electrode device as claimed in claim 1,
2 wherein the power return connector comprises first and second power return
3 connectors, the at least one energy transmission device comprises at least
4 first and second energy transmission devices, and the indifferent electrode
5 connector comprises first and second indifferent electrode connectors
6 respectively connected to the first and second energy transmission devices.

1 11. An internal indifferent electrode device as claimed in claim 10,
2 wherein the first energy transmission device comprises a plurality of spaced
3 energy transmission devices connected to the first indifferent electrode
4 connector and the second energy transmission device comprises a plurality of
5 spaced energy transmission devices connected to the second indifferent
6 electrode connector.

1 12. An internal indifferent electrode device for use with a power
2 supply apparatus including a power output connector defining a first
3 configuration and a power return connector defining a second configuration
4 different than the first configuration, the internal indifferent electrode device
5 comprising:

6 a flexible shaft defining a distal end, a distal portion, a proximal
 7 end and a proximal portion;
 8 a plurality of electrodes adapted to be inserted into a body
 9 supported on the distal portion of the flexible shaft; and
 10 an indifferent electrode connector operably connected to the
 11 plurality of electrodes and defining a configuration that substantially
 12 corresponds to the second configuration.

1 13. An internal indifferent electrode device as claimed in claim 12,
 2 wherein the power return connector comprises first and second power return
 3 connectors, the indifferent electrode connector comprises first and second
 4 indifferent electrode connectors, and the plurality of electrodes comprises a
 5 first plurality of electrodes operably connected to the first indifferent electrode
 6 connector and a second plurality of electrodes operably connected to the
 7 second indifferent electrode connector.

1 14. An internal indifferent electrode device as claimed in claim 12,
 2 wherein the power output connector defines a first shape, the power return
 3 connector defines a second shape different than the first shape, and the
 4 indifferent electrode connector defines the a shape substantially
 5 corresponding to the second shape.

1 15. A system, comprising:
 2 a power supply apparatus including a power output connector
 3 and a power return connector; and
 4 internal indifferent electrode device including
 5 a flexible shaft defining a distal end, a distal portion, a
 6 proximal end and a proximal portion
 7 at least one energy transmission device adapted to be
 8 inserted into a body supported on the distal portion of the flexible shaft, and
 9 an indifferent electrode connector operably connected to
 10 the at least one energy transmission device and adapted to mate with the
 11 power return connector.

1 16. A system as claimed in claim 15, wherein the flexible shaft is at
2 least 12 inches in length.

1 17. A system as claimed in claim 15, wherein the distal portion of
2 the flexible shaft defines a diameter less than 4 mm.

1 18. A system as claimed in claim 15, wherein the at least one
2 energy transmission device comprises an electrode.

1 19. A system as claimed in claim 15, wherein the at least one
2 energy transmission device comprises a plurality of spaced energy
3 transmission devices.

1 20. A system as claimed in claim 15, wherein the at least one
2 energy transmission device comprises a flexible electrode.

1 21. A system as claimed in claim 15, further comprising:
2 a cable extending from the proximal end of the shaft to the
3 indifferent electrode connector.

1 22. A system as claimed in claim 15, wherein the power output
2 connector defines a first configuration, the power return connector defines a
3 second configuration different than the first configuration, and the indifferent
4 electrode connector defines a configuration that substantially corresponds
5 second configuration.

1 23. A system as claimed in claim 22, wherein the power output
2 connector defines a first shape, the power return connector defines a second
3 shape different than the first shape, and the indifferent electrode connector
4 defines a shape substantially corresponding to the second shape.

1 24. A system as claimed in claim 15, wherein the power return
2 connector comprises first and second power return connectors, the at least
3 one energy transmission device comprises at least first and second energy

transmission devices, and the indifferent electrode connector comprises first and second indifferent electrode connectors respectively connected to the first and second energy transmission devices.

25. A system as claimed in claim 24, wherein the first energy transmission device comprises a plurality of spaced energy transmission devices connected to the first indifferent electrode connector and the second energy transmission device comprises a plurality of spaced energy transmission devices connected to the second indifferent electrode connector.

26. A system as claimed in claim 15, further comprising:
an electrophysiological device including at least one energy transmission device and an electrophysiological device connector operably connected to the at least one energy transmission device and adapted to mate with the power output connector.

27. A system as claimed in claim 26, wherein the electrophysiological device comprises a surgical probe.

28. An electrophysiological procedure kit for use with a power supply apparatus including a power output connector and a power return connector, the electrophysiological procedure kit comprising:
an internal indifferent electrode device adapted to connect to the power return connector; and
an electrophysiological device adapted to connect to the power output connector.

29. An electrophysiological procedure kit as claimed in claim 28, wherein the internal indifferent electrode device comprises a flexible shaft defining a distal end, a distal portion, a proximal end and a proximal portion and at least one energy transmission device adapted to be inserted into a body supported on the distal portion of the flexible shaft.

1 30. An electrophysiological procedure kit as claimed in claim 29,
2 wherein the at least one energy transmission device comprises a plurality of
3 electrodes.

1 31. An electrophysiological procedure kit as claimed in claim 28,
2 wherein the electrophysiological device comprises a surgical probe.

1 32. An electrophysiological procedure kit as claimed in claim 28,
2 wherein the an internal indifferent electrode device includes a connector
3 defining a first configuration and the electrophysiological device includes a
4 connector defining a second configuration different than the first configuration.

1 33. An electrophysiological procedure kit as claimed in claim 32,
2 wherein the internal indifferent electrode device connector defines a first
3 shape and the electrophysiological device connector defines a second shape
4 different than the first shape.

1 34. An electrophysiological procedure kit as claimed in claim 28,
2 further comprising:
3 a sterilizable package enclosing the internal indifferent electrode
4 device and the electrophysiological device.

1 35. A method of transmitting energy through a tissue structure
2 having a wall defining a first side and a second side, the method comprising
3 the step of:
4 positioning an internal indifferent electrode device within the
5 body on one of the first side and the second side of the tissue structure wall;
6 positioning an electrophysiological device within the body on the
7 other of the first side and the second side of the tissue structure wall; and
8 transmitting energy from the electrophysiological device to the
9 internal indifferent electrode device.

1 36. A method as claimed in claim 35, wherein the step of positioning
2 an internal indifferent electrode comprises positioning an internal indifferent

3 electrode device within the body on an outer side of the tissue structure wall
4 and the step of positioning an electrophysiological device comprises
5 positioning an electrophysiological device within the body on an inner side of
6 the tissue structure wall.

1 37. A method as claimed in claim 35, wherein the step of positioning
2 an internal indifferent electrode comprises positioning an internal indifferent
3 electrode device within the heart and the step of positioning an
4 electrophysiological device comprises positioning an electrophysiological
5 device on the epicardial surface.

1 38. A method as claimed in claim 37, wherein the step of positioning
2 an internal indifferent electrode within the heart comprises positioning an
3 internal indifferent electrode within a heart chamber.

1 39. A method as claimed in claim 38, wherein the step of positioning
2 an internal indifferent electrode within a heart chamber comprises positioning
3 an internal indifferent electrode within the left atrium.

1 40. A method as claimed in claim 39, wherein the step of positioning
2 an internal indifferent electrode within the left atrium comprises positioning an
3 internal indifferent electrode within the left atrium through an atrial appendage.

1 41. A method as claimed in claim 35, wherein the step transmitting
2 energy from the electrophysiological device comprises transmitting RF energy
3 from the electrophysiological device to the internal indifferent electrode
4 device.

1 42. A method as claimed in claim 35, further comprising the step of:
2 cooling the tissue structure while transmitting energy from the
3 electrophysiological device to the internal indifferent electrode device.